**FYPCOLLABOR8: FYP DIPLOMA MANAGEMENT SYSTEM**

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**Report Submitted to Fulfil the Partial Requirements for the Bachelor of Information Technology (Hons) In Software Engineering University Kuala Lumpur**

**UNIVERSITY KUALA LUMPUR**

**DECLARATION**

I declare this report is my original work and all references have been cited adequately as required by the University



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**ABSTRACT**

An innovative approach to developing Final Year Projects (FYP) is captured by FYPCollabor8: FYP Diploma Management System. This type of system is web based in nature and is opened to all users such as students, supervisors, assessors, and administrators in University Kuala Lumpur Malaysian Institute of Information Technology (UniKL MIIT). The aim of the system is to provide solutions to the problems being faced by the academic community in the management of FYP such as non-integration of communication, manual tracking of deliverable, and submission of work. For better user experience and enhanced efficiency, FYPCollabor8 is designed with real-time notifications, multiple dashboards per user role, progress reports, and accessible storehouse of resources for teaching. The RAD (Rapid Application Development) approach was used to develop the project which focuses on end-user involvement in the design and prototyping of the application. Open-source technologies such as PHP, MySQL, and Bootstrap were used in the development of the system to allow affordability and flexibility. Key functionalities include proposal management, submission tracking, peer evaluation, and integrated communication tools, all tailored to the needs of various stakeholders. FYPCollabor8 is significant as it not only simplifies the administrative workload for supervisors and coordinators but also provides students with a structured framework for managing their FYP deliverables. By leveraging technology to create a user-centric solution, the project ensures improved academic and operational outcomes, positioning FYPCollabor8 as a sustainable and scalable system for future use.

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# **CHAPTER 1: INTRODUCTION**

* 1. **Introduction**

At UniKL MIIT, pursuing an undergraduate degree comes with a requirement of defending a Final Year Project (FYP). This enables learners to implement their academic learning to problems and activities in the world. With the assistance and guidance of a supervisor, students work on a project throughout their final semester which incorporates all the skills and knowledge taught in previous courses. FYP duration for Diploma programme is for one semester, whereas, for Bachelor degree programmes the duration is for two semesters.

The purpose of the FYP is to enable students to make use of what they have learned and apply them while trying to solve a problem. This project challenges students to work independently, enhancing their ability of creative thinking and originality by engaging them in a particular task within a set time frame. These are necessary skills needed in the workplace.

Every student involvement varies, as it spans all the available final year projects for all Specializations and Courses offered at the UniKL MIIT, taking into account the dynamically changing requirements of the IT industry. In this case, the FYP help students to dive into a specific place of interest and articulate novel ideas while creating new meaningful knowledge. Detailed mapping of the coursework allows students to engage practically oriented challenges and complete exceptional work.

As a part of the project, the students give a presentation at the end where they are supposed to show the skills they have gained and their readiness to join the workforce, thus making FYP one of the crucial milestones in the life of each student.

* 1. **Project Background**

At Universiti Kuala Lumpur Malaysian Institute of Information Technology (UniKL MIIT), The Final Year Project (FYP) is an important part of their academic programs, as it enables students to showcase the theorical knowledge and skills acquired during their studies. It acts as a means for students to conduct independent research and development with the aim of solving complex problems. For diploma students, the Development of the Final Year Project (FYP) spans one semester consisting of critical milestones such as proposal submission, progress monitoring, and, final assessment submission.

As of now, the management of FYPs is encountering some problems due to the absence of a comprehensive system. The managing of submissions for the project proposals, monitoring of progress, and, the evaluation of the final deliverables not only inefficient but incoherent by making use of email, cloud storage, spreadsheets, and other platforms. The ineffective means of communication restrains proper working relation between students and their supervisors and the coordinators, and results in many issues regarding tracking of submissions and evaluations.

A Monitoring and Evaluation Supervisor of student work progress assigned to him rends to encounter challenges on the performance of his students. Checking different submissions like proposal, presentation, and final report is done at different locations which is challenging and difficult to crosscheck. Both supervisors and assessors who deal with students undertaking FYP have to deal with missing records and deadlines as well as the workload distribution of their colleagues who supervise and assess students’ works.

The system, FYPCollabor8, is designed to address these problems through a centralized web-based system designed for diploma students of UniKL MIIT. It will allow the submission and management of project deliverables, facilitate stakeholder communication, and allow for progress monitoring. Having all components of the FYP integrated into one system will not only improve administrative efficiency but ideally foster a better learning environment for students.

Figure 1‑

* 1. **Problem Statement**

The problem statements of the project are as follows:

* + 1. **No Specific Platform for Students to Manage Project Proposals and FYP Deliverables**

At the moment, there is no single source platform where students could keep track of their project proposals as well as their FYP submissions and presentations. Often, such submissions go through several disconnected systems, making it hard for everyone to see whether the work has been uploaded in time or not. Such decoupling causes inefficiencies, and translates into missed deadlines and loss of some submissions.

* + 1. **Lecturers Face Burden in Evaluating FYP Components Across Multiple Platforms**

FYP components submitted over emails or file-sharing software need to be evaluated by supervisors and assessors as well. This, inevitably, creates fragmented evaluation processes and makes it more onerous to keep the evaluation process consistent and fair, as well as adds more non-productive work.

* + 1. **Coordinators Struggle to Track Student FYP Progress and Manage Evaluations and Group Efficiently**

FYP progress tracking for students and supervisors is absent, as FYP coordinators do not have a centralized system. Furthermore, group assignments, evaluation marks, and project statuses are very cumbersome to manage manually and therefore, increases the chances of mistakes being made.

* 1. **Aim and Objectives**
     1. **Aim**

This project’s objective is to create and deploy a centralized web-based FYP Management System for Diploma students at UniKL MIIT. This system will facilitate communication, make project management less complicated, work as a framework for tracking progress, submitting the deliverables, and conducting evaluations which in the end improves overall efficiency and organization during the FYP life cycle.

* + 1. **Objectives**

The objectives of the FYPCollabor8 system are as follows:

1. **Communication and Scheduling**

Provide tools for supervisors and assessors to track progress, offer feedback, evaluate submissions, and allow students to schedule appointments with their supervisors efficiently.

1. **Submission Management**

Enable students to upload, update, delete, and manage multiple FYP deliverables through a user-friendly interface.

1. **Coordinator Oversight**

Simplify the tracking of FYP milestones and evaluations for coordinators, ensuring a smooth and organized process.

* 1. **Scope of The Project**
     1. **Scope of Users**

Users of the system are:

* Students (User)
* Supervisors (User)
* Assessors (User)
* Coordinators (Admin)
  + 1. **Scope of System**
       1. **Students**

1. **Registration**

Students need to register to use the system.

1. **Login/Logout**

Secure access to the system through login and logout functionalities.

1. **Form Group**

Students can form groups with up to four members for collaborative projects.

1. **Propose Title**

Students can propose a project title for supervisor approval.

1. **View Title Approval**

Students can check the approval status of their proposed titles.

1. **Manage Proposal Submission**

Students can upload, update, delete, and view their proposals.

1. **View Proposal Approval**

Students can view whether their project proposals are approved or rejected.

1. **View Comments and Feedback**

Students can access comments and feedback provided by their supervisors.

1. **View Learning Materials**

Access to learning resources shared by the coordinator.

1. **Update Progress Diary**

Maintain a diary to record FYP development progress.

1. **Book Meeting Appointment**

Schedule meetings with supervisors for guidance.

1. **Submit FYP Project Components**

Upload, update, delete, and view deliverables such as presentations and reports.

1. **View Progress Tracking**

Monitor submission progress and deadlines.

1. **Rate Partner**

Evaluate group members for teamwork assessment.

1. **View Announcements**

Stay updated with announcements posted by the coordinator.

* + - 1. **Supervisors**

1. **Registration**

Supervisors must register to access the system.

1. **Login/Logout**

Secure system access for supervisors.

1. **Title Approval**

Approve or reject proposed project titles by groups.

1. **Proposal Approval**

Approve or reject student-submitted proposals.

1. **Provide Comments**

Offer feedback on student submissions and proposals.

1. **Modify Project Requests**

Change student project titles or request modifications.

1. **Evaluate Deliverables**

Assign marks for student submissions, including proposals, presentations, and reports.

1. **Track Student Progress**

Monitor students' progress throughout the semester.

1. **Manage Appointments**

Approve or reject meeting requests from students.

1. **Group and Individual Evaluation**

Evaluate and assign marks for both group and individual contributions.

1. **View Announcements**

Stay informed with coordinator announcements.

* + - 1. **Assessors**

1. **Registration**

Assessors must register to access the system.

1. **Login/Logout**

Secure system access for assessors.

1. **Evaluate Proposals**

Provide grades and feedback during proposal defense sessions.

1. **Evaluate Deliverables**

Assign marks for final submissions and components.

1. **Individual and Group Evaluation**

Evaluate and assign individual and group marks.

1. **View Announcements**

Access coordinator updates and announcements.

* + - 1. **Coordinators**

1. **Registration**

Students need to register to use the system.

1. **Login/Logout**

Secure system access for coordinators.

1. **Assign Supervisors**

Allocate supervisors to students.

1. **Assign Assessors**

Assign assessors to students without supervisors.

1. **Monitor Student Progress**

Access and track details for all students.

1. **Organize Presentations**

Schedule proposal defenses and final presentations.

1. **Manage Assessment Rubrics**

Create, edit, and share grading rubrics.

1. **Oversee Deliverables**

Review all FYP components submitted by students.

1. **Manage Announcements**

Post, edit, or delete announcements for all system users.

* 1. **Expected Project**

The expected deliverable for the FYPCollabor8 project is a centralized web-based diploma FYP management system catering to students, supervisors, assessors and coordinators from UniKL MIIT. The system is aimed at easing the existing FYP processes, improving communication, simplifying the submissions, and providing structured tools for progress tracking and evaluation. The list below outlines the expected modules in detail:

|  |  |
| --- | --- |
| **Modules** | **Description** |
| Registration | Students, supervisors, assessors, and coordinators can register their accounts. Coordinators can manage user registrations and roles. |
| Login | Provides secure access for all users to the system using their unique credentials. |
| Logout | Ensures secure termination of user sessions to protect data and privacy. |
| User Profile Management | Users can view and update their profile details, such as name, email, phone number, and password. |
| Propose Title | Students can propose a project title for supervisor approval. Supervisors can approve, reject, or provide feedback on proposals. |
| Group Management | Allows students to form groups of up to four members and submit group requests. Supervisors can approve or reject group formations and modify assigned group projects if needed. |
| Manage Proposal Submission | Students can upload, update, delete, and view their project proposals. Supervisors can provide feedback and approval. |
| View Title and Proposal Approval | Students can track the approval status of their project titles and proposals. |
| Progress Diary | Students can log daily or weekly updates about their project progress. Supervisors can review these updates to track milestones and provide guidance. |
| Progress Tracking | Automates the tracking of project milestones with visual reports. Supervisors and coordinators can monitor group and individual progress. |
| Deliverable Management | Students can upload, update, and delete project deliverables (e.g., logbooks, final reports, presentation slides). Supervisors and assessors can evaluate submissions and provide marks or feedback. |
| Appointment Scheduling | Students can book appointments with their supervisors for guidance. Supervisors can manage meeting requests and schedules. |
| Notification System | Automatically notifies students, supervisors, and coordinators about submission deadlines, feedback availability, meeting approvals, and announcements. |
| View Learning Materials | Students can access teaching materials uploaded by coordinators, such as guidelines and reference materials. |
| Rate Partner | Students can rate their groupmates based on contributions to ensure accountability in group projects. |
| Announcement Management | Coordinators can create, update, and manage announcements visible to all users. |
| Supervisor Evaluation | Supervisors can evaluate student submissions (e.g., proposals, final reports) and assign grades or feedback using predefined rubrics. |
| Assessor Evaluation | Assessors can evaluate group and individual submissions and assign marks or provide feedback based on predefined criteria. |
| Peer Rating | Students can evaluate their groupmates' contributions to foster fairness and accountability. |
| Teaching Materials Management | Coordinators can upload, update, and manage learning resources for students. |
| Manage Assessment Rubrics | Coordinators can create and modify rubrics used for evaluation. |

Table 1: Expected Project Modules for FYPCollabor8 Application

* 1. **Conclusion**

The FYPCollabor8 system tackles the problem within the existing FYP process regarding the submission management, evaluation, and progress tracking by catering to users with a centralized FYP management system. It improves the experience of students, supervisors, assessors, and coordinators by making FYP administration tasks easier and therefore supporting a more organized FYP process. This project lays the groundwork for the adoption of technology to tackle academic and administrative processes.

# **CHAPTER 2: LITERATURE REVIEW**

* 1. **Introduction**

To construct an efficient Final Year Project (FYP) management system, one must have an in-depth perspective of the challenges, methodologies, and solutions existing today. This foundational literature is more than crucial for illuminating the weaknesses and strengths of the systems currently in use and how they work. This chapter seeks to strive for improved FYP management practices through an analysis of prior research and real world implementations, aiming to fill the gaps that exist within them.

This chapter dwells on searching for articles, journals and case studies that are most relevant to the development of FYPCollabor8. These sources point out the popular gaps that exist in outdated systems including separated processes, inadequate user collaboration, and lack of automated progress updates. In this way, the chapter proposes a way to overcome the limitations of NON-FYP systems by creating an easy to use, integrated, and effective one that meets the expectations of students, supervisors, and coordinators of UniKL MIIT. The review conducted gives comprehensive understandings and insights for the control and management of FYP tackling every detail and challenge without rest.

* 1. **Journals or Articles Related to the Project**
     1. **The Development of a Final Year Project Management System for Information Technology Programmes**

The study by Chun-Hang Leung and C. Lai is focused on the development of an online medium for the administration of final year projects (FYPs) in information technology (IT) programs. The objective of the platform is to facilitate FYP workflows by providing mechanisms for communication, progress reporting, and academic submissions. All authors point out the necessity of combining all activities related to a project within one system, which greatly diminishes the silos most people would expect when undergoing standard FYP procedures. This study successfully shows how technology can be used to solve problems associated with poor communication, lack of proper methods of monitoring activities, and the lack of adequate supervision of students by project coordinators.

This study offers concrete evidence that supports the needs of FYPCollabor8 because it deals with web-based solution development for FYP management, and as all proposed objectives point out, similar problems definitely exist. The findings of this study strengthen the arguments for developing the system that guarantees seamless communication between the stakeholders of the project and efficient distribution of tasks. Moreover, the practical information provided in the article is useful in setting tool development for the alleviation of administrative work and cooperation.

* + 1. **Prototype Development of Final Year Project Management System to Monitor Student's Performance**

This report relates to the creation of a model FYP management system that is designed to track and assess student performance using an interactive dashboard. The authors propose a system that combines the tracking of submissions, updates on milestones, and the visualization of progress in one dashboard. So, effective design should always be an important, if not the most important, consideration during the design of such systems. The system’s structure considering the development of computer workstations with user-friendly interfaces contributes to more effective monitoring, which helps teachers to afford more contact time with their students with intention of giving feedback more frequently and easily.

These results are helpful for the development of FYPCollabor8 as it already has a predefined automated progress tracking system and visualized dashboards. A focus on a straightforward user journey resonates with the purpose of FYPCollabor8 which is dedicated to improve efficiency in managing FYP deliverables. The successful development of the prototype is also a confirmation of the value of iterative testing and refinement, as is the case in the construction of FYPCollabor8.

* + 1. **A Web-Based System for Final Year Project Supervision and Assessment**

A web-based system for monitoring and evaluating FYP students is discussed in A. Rahman and M. Hussain's study, along with a comprehensive assessment of the topic. The research highlights the need for an integrated online system where students upload project outputs; supervisors mark reports and presentations and coordinators monitor the project status in real-time. A unique feature of this system is the automated reminder system that notifies students and supervisors of impending deadlines and for submissions that could be outstanding, thereby reducing the possibility of missed milestones.

The study details the problems experienced with the conventional approach to FYP management and the possible solutions that can be provided by technology in terms of communication and productivity. The proposed system allows real-time tracking to ensure transparency and equity in the grading process, and offers formal and informal communication options for use between the students and the supervisors. The incorporation of real-time notifications in the system supports the case for FYP management tools such as FYPCollabor8, which aim to foster interaction between students and their supervisors to promote proper time management. This work strengthens the case for automation of effort in all the processes that comprise the FYP, something that FYPCollabor8 wishes to do appropriately.

* + 1. **The Role of Cloud Computing in Final Year Project Management Systems**

S. Tan and Y. Lee analyze the shifting paradigms of FYP management systems due to cloud computing technology in this journal article. The study further elaborates on the adoption of cloud platforms that enable students, supervisors, and assessors to work together from different remote locations seamlessly. It emphasizes on real-time sharing of documents, cloud storage for project files, and access control to ensure data integrity while maintaining ease of use.

The research outlines the scalability, accessibility, and centralized FYP data management as the advantages of using the cloud. Unlike traditional offline or server based systems, cloud solutions offer an advantage of no more needing to perform manual document backup and submission. The results obtained are very much in favor of the FYPCollabor8 project since the project also seeks to incorporate cloud-based solutions for even better data accessibility and storage management. Adding cloud computing in FYPCollabor8 will improve data security, collaboration, and access to information, hence, increasing the efficiency of the entire process of the FYP.

* 1. **Case Study on Existing FYP Management Website**

The following case studies analyze three existing FYP management systems to identify their functionalities, strengths, and limitations. This analysis provides a foundation for developing FYPCollabor8, addressing the gaps in current solutions.

* + 1. **UNIMAS FYP Management System**

FYP Management System (FYPMS) of the University Malaysia Sarawak (UNIMAS) is a system to facilitate the FYP process by managing the students basic profile, students weekly logbook updates, and submissions. The students are able to use the system to update their progress and supervisors will update their feedback through logbook entries in relation to the students milestones. This is advantageous for ensuring all supervisors’ instructions are being followed for steady development in the course of the semester. Also, students have a submission module where participants can submit their deliverables like proposals and reports for the supervisors review.

While UNIMAS has defined communication and tracking systems, there are issues with their management. These systems are not easily scalable which entails that having a larger user base or adjusting to the institutions needs is difficult. In addition, most of the feedback and evaluation is manual which means there is a greater administrative burden for the supervisors and coordinators. There Is a need for automation and a more scalable framework for this limitation so that the future demands of FYP management can be fulfilled.

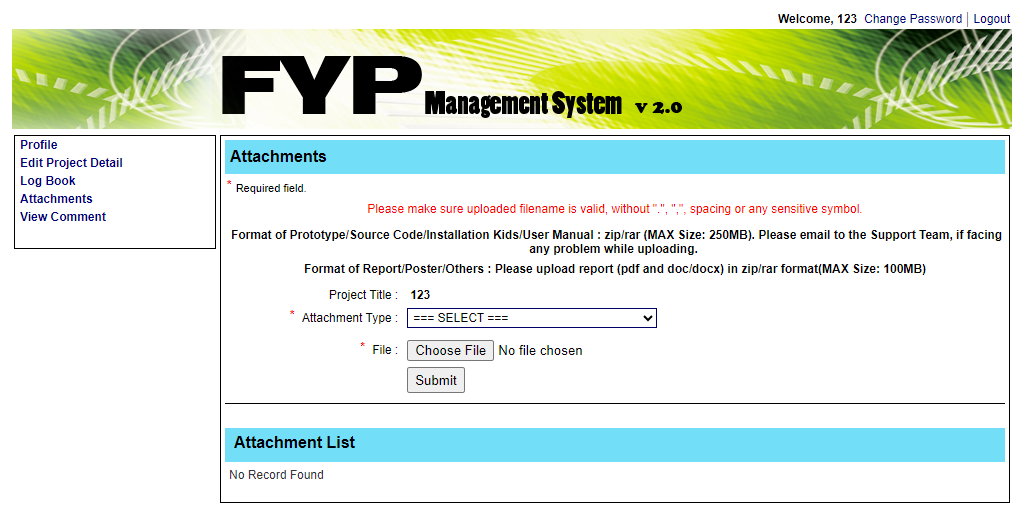


Figure 0‑1: UNIMAS FYP Management System

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| * Transparent tracking of student progress * Enables structured communication through logbooks * Supports submission management with attachment uploads | * Limited scalability for accommodating more users * Manual processes for tracking and feedback |

Table 2: List of Advantages and Disadvantages of UNIMAS FYP Management System

* + 1. **FYPOS (Final Year Project Online System)**

Developed and managed by Universiti Teknologi Petronas, FYPOS features an online portal that integrates FYP workflow systems to a centralized platform. It enables students to simply submit the project deliverables, select or propose titles, and interact with their supervisors, while also creating a singular location to house all relevant information through a centralized database. This all-in-one database matrix significantly reduces the dependency on external tools which improves overall workflow efficiency. Furthermore, supervisors can evaluate and give feedback using platforms, improving their capability of overseeing a range of students.

At the same time, students and supervisors must find alternative methods of sharing important documents which makes the system an incomplete upload solution. The severity of this limitation dilutes the concept of a fully centralized solution. The rigid structure of FYPOS also makes it difficult to introduce new features or expand its capabilities over time making it infeasible for an ever evolving ecosystem.

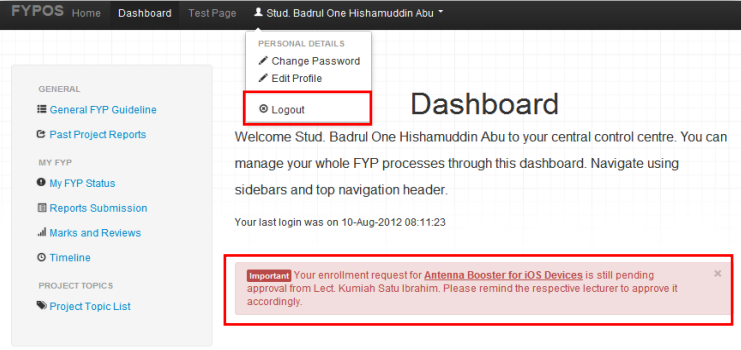


Figure 0‑2: FYPOS (Final Year Project Online System)

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| * Streamlines workflows by replacing manual processes * Centralized database for easy access to information * User-friendly interface improves accessibility | * Does not support file uploads due to server limits * Rigid structure makes it hard to add new features |

Table 3: List of Advantages and Disadvantages of FYPOS

* + 1. **Final Year Project Management System (FYPMS UPTM)**

Final Year Project Management System (FYPMS) To Monitor Student Level Performance: Prototype Development is an undertaking by Raznida Isa and other staff in the Universiti Poly-Tech Malaysia that aims to overcome problems caused by inefficient manual processes involved in FYP management. It is a web based system where students, lecturers, and coordinators can easily interact and administer the various components of the FYP in one place. This system is designed so that progress can be tracked visually on a dashboard which allows progress monitoring and supervision to be done with ease.

The purpose of the FYPMS is to help with the increased number of students and the subsequent burden that lecturers have in supervision and monitoring students. The system enables students to submit project deliverables and track their progress, along with obtaining feedback from the assigned supervisors. It is possible for the lecturers to see the progress of the students assigned to them, graduate them, view submissions and even suggest titles to projects. This makes the overall control of the coordinators easier by centralising user account control, assigning supervisors and monitoring the process as a whole.

Even with its groundbreaking capabilities, the system has some deficiencies, which include an incomplete notification mechanism for real-time updates and the system’s reliance on user training. Nonetheless, it’s design and implementation are key steps forward from the manual methods and contributes to the decrease in delays, improved communication, and better outcome of the projects.

A screenshot of a computer

Description automatically generated

Figure 0‑3: Final Year Project Management System (FYPMS)

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| * Centralized platform for communication and project management * Dashboard-based interface for real-time progress tracking * Simplifies submission management for students and supervisors * Reduces delays and enhances supervision quality | * Limited notification system for real-time updates * Dependency on initial user training for effective use |

Table 4: List of Advantages and Disadvantages of FYPMS

* + 1. **TARUMT FYP Management System**

The Tunku Abdul Rahman University College (TARUMT) FYP Management System has been developed to self automate certain critical components in the entire FYP process like the review of submission forms, the checking of rubric guidelines, and even the monitoring of the supervisor's workload. It is also good at minimizing admin work since the bulk of the green evaluation rubric and the division of evaluators workload is taken care of by the coordinators. There is a lot to gain from processes that have become automated like the appendices for the report and other project deliverables by the supervisors. These features are important in promoting uniformity and clarity in evaluation and in making FYP assessment less arbitrary.

Whereas TARUMT has focused on automating processes, there are very evident gaps that the system does not brigde. The system does not have real time students’ and supervisors’ collaborative spaces which limits contact. There is no notice board feature which is crucial for notifying users about deadlines or feedback and would improve project completion timelines. Filling in these gaps would improve the overall usability and effectiveness of the system.

A screenshot of a computer

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Figure 0‑4: TARUMT FYP Management System

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| * Automated processes reduce administrative workload * Report generation streamlines evaluations * Rubric management ensures consistent assessments | * Lacks features for real-time updates or collaboration * No notification system for timely updates |

Table 5: List of Advantages and Disadvantages of TARUMT FYP Management System

* 1. **Comparison and Critical Analysis of Existing Systems**

The following table summarizes the advantages and disadvantages of the three systems, highlighting the gaps that FYPCollabor8 aims to address:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Features** | **Name of Applications** | | | |
| **UNIMAS** | **FYPOS** | **TARUMT** | **FYPMS** |
| Centralized Submission | Yes | Yes | Yes | Yes |
| Progress Tracking | Yes | No | Yes | Yes |
| Evaluation Tools | Yes | Yes | Yes | Yes |
| Notifications | No | No | No | No |
| Logbook Management | Yes | No | No | Yes |
| Scalability | Limited | Limited | Limited | Limited |
| Real-Time Collaboration | No | No | No | No |
| Teaching Materials Integration | No | No | No | No |
| Peer Evaluation | No | No | No | No |
| Customizable Rubrics | No | No | Yes | No |
| Role-Specific Dashboards | No | No | No | Yes |
| File Format Support | Yes | No | Yes | Yes |

Table 6: Comparison of Existing Systems

* 1. **Gap Analysis**

The documentation of current FYP management systems discloses certain obvious gap areas that undermine their functionality and user-friendliness. Although the UNIMAS FYP Management System, FYPOS and TARUMT FYP Management System have developed toward automation and efficiency, a number of issues remain unsolved. These issues offer a chance for FYPCollabor8 to offer new solutions and strengthen the current ones.

* + 1. **Lack of Real-Time Notifications**

An existing systems shortcoming is the lack of sound notification capabilities to alert users about submission dates, feedback, and approvals of meetings. This absence leads to delays and miscommunication among students, supervisors and coordinators.

* **Proposed Solution in FYPCollabor8**: The enhancement involves attributing the real time notification system to compensate the existing limitations by enabling users to track significant changes for submission, modification of documents or new instructions.
  + 1. **Limited Role-Specific Dashboards**

Current systems do not consider the unique needs of various users (students, supervisors, assessors, and coordinators) adequately. Their interfaces are business generic which reduces their effectiveness and increases response time to information queries.

* **Proposed Solution in FYPCollabor8**: Custom dashboards for all types of users, bringing role specific attributes (e.g., progress tracking for coordinators, submission reviews for supervisors).
  + 1. **Absence of Groupmate Evaluation**

Existing systems ignore peer evaluation, which gives students the chance to judge their teammates’ input to a project. This leads to workload inequity and unsatisfied team members.

* **Proposed Solution in FYPCollabor8**: Introduction of a peer rating feature to promote fairness and accountability, ensuring that group members are evaluated based on their individual contributions.
  + 1. **Inadequate Progress Tracking**

Some systems have milestone achieved markers, but these systems seem to not include automatic updates, visual markers of progress, and any automation at all. Because of this, supervisors and coordinators seem to not be able to successfully navigate project schedules.

* **Proposed Solution in FYPCollabor8**: Automated progress tracking with visual dashboards, enabling supervisors and coordinators to quickly assess project milestones and identify potential delays.
  + 1. **Lack of Integrated Communication Tools**

Lack of communication between students and supervisors is often done through external means, such as emails or face to face meetings, which leads to feedback being given in a small and fragmented manner, which incurs a delay in obtaining it.

* **Proposed Solution in FYPCollabor8**: Integration of real-time communication tools within the platform, allowing users to exchange messages, schedule meetings, and receive feedback directly.
  + 1. **Minimal Support for Teaching Materials**

Usually there is no centralized storage of teaching materials, which is important for students carrying out the FYP.

* **Proposed Solution in FYPCollabor8**: An independent module for coordinators to upload and share teaching materials so that students are able to have easy access to such resources.
  1. **Feasibility Study**
     1. **Economic Feasibility**

FYPCollabor8 is designed to utilize existing hardware and infrastructure at UniKL MIIT, such as institutional servers and user devices. Since the system is web-based, no additional costs are required for installation beyond initial development and deployment. Free and open-source tools like PHP, MySQL, and HTML/CSS are used for development, ensuring minimal software costs.

Furthermore, the centralized nature of the system reduces the need for manual processes, saving time and resources. Over time, operational savings from reduced paperwork, streamlined processes, and fewer errors will offset initial development costs, making FYPCollabor8 economically feasible.

* + 1. **Operational Feasibility**

The operational feasibility of FYPCollabor8 lies in its ability to streamline the FYP management workflow for all stakeholders:

* **Students** benefit from a centralized platform for submissions, tracking, and communication, reducing confusion and missed deadlines.
* **Supervisors and Assessors** experience a significant reduction in workload by using role-specific dashboards, automated evaluations, and notification systems.
* **Coordinators** no longer need to manually track student progress or manage complex evaluations, allowing them to focus on strategic oversight.

By automating and centralizing these tasks, FYPCollabor8 minimizes the dependency on manual processes, reduces overtime for staff, and improves accuracy. Over time, the system will increase productivity and efficiency for all involved parties, proving its operational feasibility.

* + 1. **Technical Feasibility**

The development of FYPCollabor8 leverages widely used and well-supported technologies, including:

* **Frontend**: HTML, CSS, and JavaScript for a responsive user interface.
* **Backend**: PHP for server-side processing.
* **Database**: MySQL for efficient data storage and retrieval.

These tools are free and open-source, reducing development costs. Furthermore, the development team consists of IT students and supervisors with expertise in software development, ensuring that technical challenges can be addressed effectively.

* 1. **Conclusion**

A review of literature and the relevant case studies for the creation of FYPCollabor8 is done in this chapter. When evaluating other FYP management systems including the UNIMAS FYP Management System, FYPOS, and the TARUMT FYP Management System, the analysis points out the advantages these systems hold in regard to centralized submissions, evaluation tools, and progress tracking. Nevertheless, there still exist significant deficiencies in real-time notifications, role specific dashboards, peer evaluation, integrated communication tools, and teaching material support.

The gap analysis helps confirm the existence of the why problem for an system solution such as FYPCollabor8 which tries to offer automatic solutions, customized designed dashboards, and effective communication tools. In addition, the findings of other journals under the topic “The Development of a Final Year Project Management System for Information Technology Programmes” and “Prototype Development of Final Year Project Management System to Monitor Student's Performance” emphasis on the problem of lack of centrality and the lack of visualized progress reports. These studies validate the goal of the FYPCollabor8 to solve existing problems and enhance people’s collaboration.

The feasibility study makes a point that FYPCollabor8 is practical from an economic, operational, and technical point of view. Because the system makes use of already available institutional infrastructure and inexpensive technologies, there are, in particular, long-term advantages, such as less administrative work, better collaboration, and improved resource utilization.

Equally important, the information and assessments provided in this chapter serve as the building blocks for the design and implementation of FYPCollabor8. Learning from the weaknesses of available systems and embedding new ideas into solutions, it is possible for FYP management at UniKL MIIT to be fully innovative and to grant students, supervisors, assessors, and coordinators a pleasant and effective way of working.

# **CHAPTER 3: METHODOLOGY**

* 1. **Introduction**

This chapter describes the methodology that has been used to develop FYPCollabor8. It explains how requirements were collected, how the system was designed, developed, and how it was improved. Moreover, the chapter provides further details regarding the methodology selected for the current project, the tools that were employed during the development of the project, the project schedule, and the project cost estimate. These elements provide a structured framework for the successful completion of the project.

* 1. **Research Methodoogy Structure**

The process chosen for the creation of FYPCollabor8 is the Rapid Application Development (RAD) model. This technique focuses on proximal software development where there is a faster iteration of requirement gathering, designing, and development along with combined efforts of the developers and the stakeholders. It is ideal for cases like FYPCollabor8, where requirements from users may change over the course of development. RAD provides the needed flexibility that enables a more accommodative and agile approach towards system development.

With the RAD methodology, the production of administrative prototypes is encouraged. These prototypes serve as tangible representations of important features of the systems being built. These prototypes are further developed through multiple iterations of testing until they are certain that the system meets the actual needs of users. This also ensures that there is less risk of issues being raised after the project is over. So, the RAD methodology helps in lessening issues and concerns that may arise at the end of the project while also ensuring that development processes are completed faster.

RAD incorporates four primary phases - Requirements Planning, User Design, Construction, and Implementation. At every stage, there are feedback loops, which are helpful to adapt the system to all the desired changes in an effective manner. This iterative process is very important for FYPCollabor8 since the system addresses some gaps while incorporating user feedback to evolve in accordance to the needs of the institution.

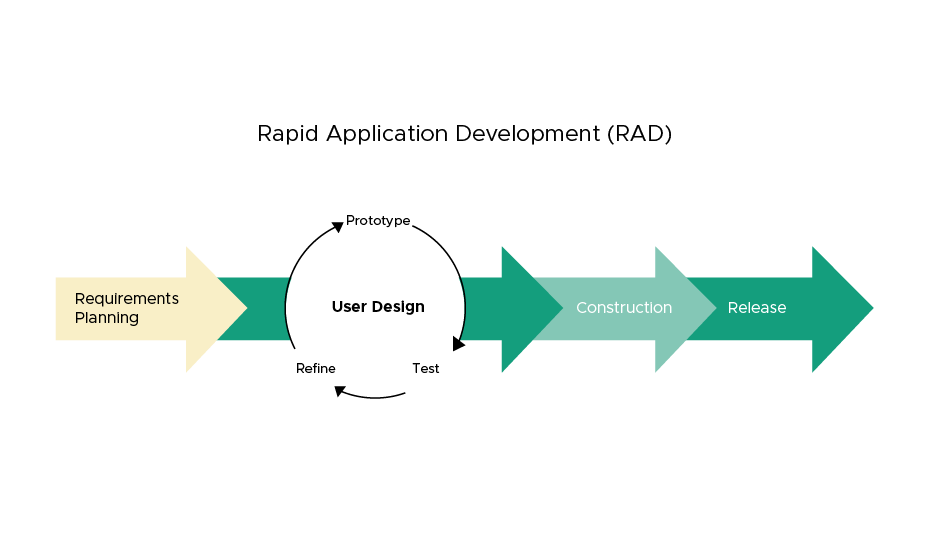


Figure 0‑1: Rapid Application Development (RAD)

It encourages interaction between all the parties involved, allowing the developers to freely test their design ideas without any risk. That flexibility in these methods and their feedback mechanisms make it a strong candidate in creating FYPCollabor8 as at the end of it, the system is efficient and easy to use.

* + 1. **Requirements Gathering and Analysis**

This phase involves collaborating with stakeholders to define the scope, objectives, and key features of the system. Core functionalities such as submission management, progress tracking, notifications, and role-specific dashboards are identified. Frequent feedback loops during this phase ensure that user needs are captured accurately.

**Deliverables**: Problem statement, project scope, functional and non-functional requirements, and system requirement specifications (SRS).

* + 1. **User Design**

In this phase, prototypes of the system are created to visualize the system’s features and workflows. These prototypes focus on key functionalities like user interfaces for submissions, dashboards, and notifications. Feedback is collected and incorporated to refine the design iteratively.

**Deliverables**: Prototypes, UML diagrams, and interface designs.

* + 1. **Build Prototype**

A basic prototype is developed based on the user design. This prototype includes core features such as submission modules, progress tracking, and notifications. Testing is conducted to identify issues, and subsequent iterations add or refine features.

**Deliverables**: Working prototype, initial database integration, and basic system functionality.

* + 1. **User Testing and Feedback**

User testing is conducted to evaluate the prototype’s usability, functionality, and alignment with user expectations. Feedback from stakeholders is analyzed and used to refine the system. Testing methods include black-box testing for functionality and user acceptance testing.

**Deliverables**: Test cases, user feedback reports, and updated prototypes.

* + 1. **System Refinement**

Based on user feedback, the system is refined to address identified issues and integrate additional features. Iterative refinements ensure that all user requirements are met before finalizing the system.

**Deliverables**: Finalized prototype and improved functionality.

* + 1. **Implementation and Maintenance**

The refined system is deployed to production and monitored for performance. Maintenance is carried out to address any bugs or user feedback. Future updates are planned to enhance system capabilities based on emerging requirements.

**Deliverables**: Final version of FYPCollabor8.

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| Encourages active user involvement, ensuring the final product aligns with user needs. | Requires significant user involvement, which can be challenging to maintain consistently. |
| Iterative development allows for quick adjustments based on feedback. | May result in scope creep if changes are not managed effectively. |
| Rapid prototyping accelerates the development process and reduces time-to-market. | Short development cycles may compromise the quality of testing for each iteration. |
| Reduces risks by identifying issues and gathering feedback early in the process. | Requires skilled and experienced developers for quick turnaround and quality assurance. |
| Facilitates better communication and collaboration between developers and stakeholders. | Not suitable for large-scale projects with complex requirements or high interdependencies. |
| Enhances flexibility and adaptability to evolving requirements. | High dependency on tools and technologies may increase costs for some projects. |

Table 7: Advantages and Disadvantages of the RAD Methodology

* 1. **Requirement Specification (SRS)**
     1. **Functional Requirements**

The functional requirements define the key capabilities and features of the FYPCollabor8 system. These include:

* **User Authentication and Role Management**

Secure login and role-based access control for students, supervisors, assessors, and coordinators.

* **Project Proposal Management**

Submission, approval, and modification of project proposals.

* **Progress Tracking**

Automated tracking of student progress and milestones.

* **Submission Management**

Upload, update, and review deliverables such as reports and presentations.

* **Evaluation and Feedback**

Supervisors and assessors can provide structured feedback and assign grades.

* **Appointment Scheduling**

Students can schedule meetings with supervisors.

* **Peer Evaluation**

Students can assess their group members' contributions.

* + 1. **Non-Functional Requirements**

The system must meet the following non-functional requirements:

* **Performance**

The system should handle concurrent access from multiple users without significant delays.

* **Security**

All user data must be securely stored and encrypted.

* **Usability**

The interface should be intuitive and easy to navigate.

* **Scalability**

The system should be capable of handling an increasing number of users over time.

* **Reliability**

The system should ensure high availability and data integrity.

* + 1. **High-Level System Design**

The system architecture of FYPCollabor8 follows a structured design to ensure efficiency and scalability. The primary components include:

* **Frontend:** Designed using HTML, CSS, and JavaScript for a responsive user interface.
* **Backend:** Built using PHP for server-side processing.
* **Database:** Implemented using MySQL for efficient data management.
  1. **Use Case Diagram**

The Use Case Diagram provides a high-level overview of how users interact with the FYPCollabor8 system. It defines the roles (actors) involved in the system and their respective functionalities. This visualization helps in understanding the system's workflow, ensuring that all necessary interactions are mapped out clearly. The following figure represents the Use Case Diagram of FYPCollabor8:

A diagram of a flowchart

Description automatically generated

Figure 0‑2: Use Case Diagram for FYPCollabor8

* + 1. **Explanation of Actors and Their Roles**

The FYPCollabor8 system consists of four main actors: Students, Supervisors, Assessors, and Coordinators. Each actor plays a crucial role in ensuring a structured and efficient Final Year Project (FYP) management process.

**Students** will manage project proposals submitted by them, track their implementation and submit required documents. They start with registration and logging into the system and from there they can propose project titles. After a specific project is approved, students can form groups to submit proposals, and after approval they will be able to update their progress through logbooks and progress reports. In addition, students can also arrange meetings with their supervisors, finalize report submissions, view and upload presentation slides. These functions ensure the students are well guided and deliver their projects within the due date and within the expectations of the supervisors.

**Supervisors** will perform mentorship and evaluation roles on students. They examine and assess project proposals, give comments on submissions, and follow up on students’ progress as documented in the diaries and reports. If supervisors deem it important, they can ask project details to be changed and check the standard of the submission. In additional they also set the appointment with the students and coordinate the evaluation of the deliverables in order to make sure the student complete their projects as required.

**Assessors** are responsible for the reviewing of student submissions according to a set of grading criteria. Their core competencies include evaluating and grading the submissions made by students in the form of project proposals, final reports, and presentations. They also give qualitative remarks and check for adherence to set standards of evaluation. In addition, assessors have the capacity to give marks on an individual basis or as a group, facilitating comprehensive evaluation of each group member's contribution.

**Coordinators** oversee the overall management of the FYP process by ensuring that all administrative aspects run smoothly. They manage submission deadlines, assign supervisors and assessors to students, and set the evaluation rubrics. Additionally, coordinators have access to student progress data and assessment results, enabling them to monitor performance across multiple projects. They also manage announcements and teaching materials within the system, ensuring that all users receive timely updates and relevant resources.

* 1. **Entity Relationship Diagram (ERD)**

A detailed Entity-Relationship Diagram (ERD) is used to model the database structure and relationships. The ERD is provided below:

**A computer screen shot of a computer

Description automatically generated**

Figure 0‑3: ER Diagram FYPCollabor8

The data design of FYPCollabor8 involves the creation of a logical data model that defines the various entities, attributes, and relationships within the system. The Entity-Relationship Diagram (ERD) serves as a blueprint for the database structure, ensuring that data is efficiently stored, managed, and retrieved throughout the system's lifecycle. The ERD provides a comprehensive view of how different system components interact and how information flows between entities.

* + 1. **Overview of the Entity-Relationship Diagram (ERD)**

The ERD for FYPCollabor8 models the core functionalities of the system, illustrating the key entities involved and their relationships. The system is designed to manage the Final Year Project (FYP) process by incorporating student submissions, supervisor evaluations, progress tracking, notifications, and administrative functions. The primary entities in the system include students, supervisors, assessors, project proposals, evaluations, assessments, notifications, and progress tracking.

* + 1. **Relationships Between Entities**

The ERD establishes relationships between the entities to ensure efficient data flow and management:

* Each student belongs to a group and can submit proposals and progress diaries.
* Each group is assigned a supervisor and an assessor for evaluation.
* Assessments and evaluations are linked to groups, allowing assessors to review project deliverables.
* Supervisors and assessors provide feedback, submit evaluation grades, and schedule meetings with students.
* Coordinators manage announcements, upload teaching materials, and assign rubrics for grading.
* Notifications are triggered to inform students, supervisors, and coordinators about project updates and deadlines.

The data design of FYPCollabor8 ensures a well-structured relational database, enabling efficient storage, retrieval, and processing of FYP-related data. The Entity-Relationship Diagram (ERD) provides a detailed representation of the system's core functionalities, relationships, and interactions between entities. By implementing a structured data model, the system optimizes project tracking, submission management, evaluation processes, and communication among stakeholders, ensuring a streamlined and efficient FYP management process.

* 1. **Project Timeline**

The project timeline is managed using a Gantt chart, which outlines the work breakdown structure and phases of the RAD methodology. Each phase is scheduled to ensure smooth development and timely completion. The Gantt chart is provided below:

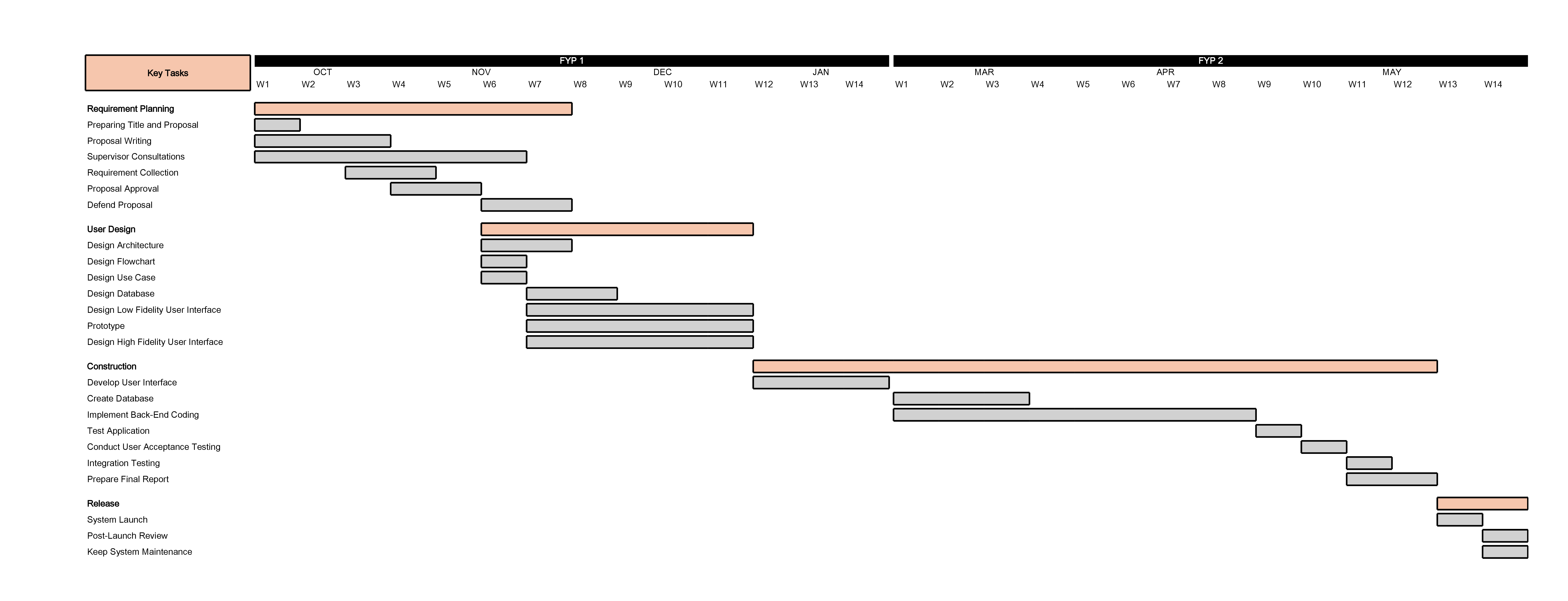


Figure 0‑4: Gantt Chart FYPCollabor8

The Gantt chart represents the structured timeline for project development, divided into **FYP 1 and FYP 2** phases. The first phase focuses on requirement gathering, literature review, feasibility study, and system design. The second phase includes system development, database implementation, testing, final refinements, and deployment. Dependencies between tasks are clearly established, ensuring that each milestone is completed before progressing to the next. The critical path highlights the most important tasks that must be completed on time to avoid project delays.

* 1. **Requirement Specification**
     1. **Hardware Requirements**

|  |  |
| --- | --- |
| **Category** | **Specifications** |
| Device | HP Pavilion Laptop |
| Operating System | Windows 10 |
| Browser | Google Chrome |
| RAM | 8GB |
| CPU | Intel Core i5 |
| Peripheral | Mouse, External Monitor |

Table 8: Hardware Requirements

* + 1. **Software Requirements**

|  |  |
| --- | --- |
| **Category** | **Technologies** |
| Database | MySQL |
| Design Tools | Figma, Canva |
| Development | Visual Studio Code |
| Framework | PHP, Bootstrap |
| Other Tools | Draw.io (diagrams) |

Table 9: Software Requirements

* 1. **Budget and Costing**

|  |  |
| --- | --- |
| **Product** | **Cost (RM)** |
| HP Pavilion Laptop | RM3,000 |
| Windows 11 Pro | RM600 |
| Fantech WGC2 Venom II | RM100 |
| Royal Kludge RKH81 | RM250 |
| Acer VG240Y | RM900 |
| Visual Studio Code | Freeware |
| Mircrosoft Word, Office and Excel | RM650 |
| Figma, Canva, Sketch, Excalidrawer | Freeware |
| HTML, CSS and Javascript | Freeware |
| MySQL Database | Freeware |
| Draw.io | Freeware |
| Microsoft Edge | Freeware |
| PHP | Freeware |
| Total Estimated Cost | RM5,500 |

Table 10: Budget and Costing

* 1. **Conclusion**

This chapter outlined the methodology, tools, and resources used for the development of FYPCollabor8. The RAD methodology was chosen for its flexibility and iterative approach, ensuring that the system aligns closely with user needs. Each phase of development, from requirements gathering to implementation, was detailed, along with the functional and non-functional requirements extracted from the SRS document.

Additionally, the high-level system design and data design were documented, supported by an ERD to illustrate system relationships. The inclusion of a Gantt chart ensures that the project timeline is well-structured, providing a clear roadmap for the successful completion of FYPCollabor8. By following this methodology, the project ensures an efficient and organized development process, leading to a scalable and sustainable FYP management system.

# **CHAPTER 4: PROTOTYPE/PRODUCT DEVELOPMENT**

* 1. **Introduction**

This chapter presents the development of the FYPCollabor8 prototype, a web-based Final Year Project (FYP) Management System designed for diploma students at UniKL MIIT. The prototype focuses on enhancing the management of FYP deliverables, communication between stakeholders, and progress tracking. This chapter provides a walkthrough of the system's main modules, featuring key interfaces accompanied by descriptions.

* 1. **System Prototype**

The FYPCollabor8 web application is developed using HTML, CSS, Bootstrap, and PHP. PHP serves as the primary programming language for both front-end interactions and back-end operations. The user interface is designed to be intuitive and user-friendly, utilizing Bootstrap and CSS to create a responsive and visually appealing design adaptable across various devices. On the back-end, PHP manages server-side logic, ensuring efficient communication between the user interface and the database. For data storage and retrieval, MySQL is utilized, hosted on the XAMPP server environment. The development process involved integrating these technologies to build a cohesive application that fulfills user requirements, particularly focusing on modules such as proposal submission, deliverable management, progress tracking, appointment scheduling, and integrated communication tools.

* 1. **System Architecture**

The system architecture of FYPCollabor8 is designed to streamline the FYP process through a robust interaction between users, front-end interfaces, server-side processes, and a structured database. The architecture ensures efficient communication among various stakeholders, including students, supervisors, assessors, and coordinators.

The users of the system play distinct roles. Students are responsible for submitting proposals, uploading project components, scheduling meetings, and updating progress diaries. Supervisors review project proposals, provide feedback, evaluate student deliverables, and manage meetings with their supervisees. Assessors perform evaluations during proposal defense and final submissions, providing grades and qualitative feedback. Coordinators manage the overall system by assigning supervisors and assessors, publishing announcements, and monitoring student progress.

On the front-end, FYPCollabor8 employs HTML, CSS, JavaScript, and Bootstrap to create an interactive, accessible interface. This layer handles user inputs and displays system outputs effectively across different devices, such as laptops, tablets, and smartphones. The back-end operations are managed using PHP, which processes data received from the front-end, enforces business logic such as project proposal approval and deliverable evaluations, and handles communication with the database. The database component, built using MySQL on XAMPP, stores all critical data, including user profiles, project details, submission records, evaluation results, and notification logs.

The data model is structured to support efficient operations. The User Tables store credentials and role-based access details for administrators, students, supervisors, assessors, and coordinators. The Project Tables record project titles, proposals, deliverables, and approval statuses. The Evaluation Tables maintain assessment records and feedback submitted by supervisors and assessors.

The cohesive interaction among the users, front-end interface, back-end processes, and database ensures that FYPCollabor8 operates smoothly, providing a reliable and centralized platform for the management of the Final Year Project at UniKL MIIT.

* 1. **System Modules and Interface Walkthrough**
     1. **Landing Page**

A screenshot of a computer

AI-generated content may be incorrect.

Figure 4.1: Landing Page

* + 1. **Student Interface**

1. **Register Page**

The student registration page allows new users to create an account by entering their student ID, password, full name, email address, and contact number. Students are also required to select their current semester for FYP enrollment.

(Figure 4.2: Student Registration Page)

1. **Login Page**

Students access the system by entering their ID and password on the login page. A successful login redirects them to their personalized dashboard.

(Figure 4.3: Student Login Page)

1. **Student Dashboard**

Upon logging in, students are directed to a dashboard that displays project details, proposal status, supervisor and assessor information, and semester details. The dashboard dynamically updates based on the proposal status: pending, approved, or rejected. Students can edit or delete proposals as needed.

1. **Title Proposal**

Students are able to view their group information, proposed project title, project description, and group members through the Title Proposal page. The page also displays the names of the assigned supervisor and assessor. Students can form groups consisting of two to four members and are required to select their supervisor from a dropdown menu before submitting their project title proposal. If a student is already part of a group, the system will restrict the creation of another group and automatically mark the student’s name as unavailable for selection. This module ensures that each student is correctly assigned to an appropriate supervisor, maintaining the organization and integrity of the project allocation process.

(Figure 4.X: Student Project Overview Page)

1. **Change Project Detail**

Students are allowed to edit their project title and project description through the "Change Project Details" section. This feature becomes available after the selected supervisor has accepted the student's project proposal. It provides flexibility for students to refine their project information before proceeding to the next stages of the Final Year Project process.

Figure 4.X: Change Project Details Page)

1. **Deliverable Management**

students to manage their project submissions in one place. Students can view a list of uploaded deliverables, including details such as the submission type, semester, file name, status, and submission date.

Students can upload new deliverables, update existing submissions by selecting a new file, or delete previously submitted files if corrections are needed. A notification confirms when all required deliverables have been submitted.

This page ensures students can easily track, manage, and update their FYP submission progress.

(Figure 4.X: Student Deliverables Management Page)

1. **Diary Progress**

students to record and track their weekly project activities. Students can add new entries by specifying the date, a title, and a detailed description of their progress.

If no entries exist, the table remains empty. Deletion of entries is only allowed once the group is approved by the supervisor.

This module helps students document their FYP journey systematically, supporting better monitoring by supervisors.

(Figure 4.X: Student Diary Progress Page)

1. **Teaching Materials**

students with access to reference materials uploaded by coordinators. Resources are listed with details such as title, description, type, uploader name, and upload date.

If no materials are available, the table remains empty. This feature ensures students can easily find important guidelines and supporting documents for their FYP work.

(Figure 4.X: Student Teaching Materials Page)

1. **Meeting Scheduling**

students to request meetings with their supervisors by selecting a date, time, and entering meeting details.

Students can view upcoming meetings on a monthly calendar layout. Editing meeting details is only possible once the group is approved and meetings have been scheduled.

This feature helps students organize consultations and maintain effective communication with their supervisors.

(Figure 4.X: Student Meeting Schedule Page)

1. Student Profile

The "Student Profile" page allows students to view and manage their personal account information. Details such as full name, username, email, intake year, and intake month are displayed.

Students can update their profile information and securely change their account password through the "Change Password" section.

This page ensures that student data remains accurate and secure within the system.

(Figure 4.X: Student Profile Page)

* + 1. **Supervisor Interface**

1. **Register Page**

The supervisor registration page allows new users to create an account by entering their lecturer ID, password, full name, email address, and contact number. Supervisors are registered into the system to enable access to FYP management functionalities.

(Figure 4.2: Supervisor Registration Page)

1. **Login Page**

Supervisors access the system by entering their ID and password on the login page. A successful login redirects them to their dedicated supervisor dashboard.

(Figure 4.3: Supervisor Login Page)

1. **Supervisor Dashboard**

The "Supervisor Dashboard" provides supervisors with a centralized overview of their academic oversight tasks. Supervisors can view student lists, track meeting schedules, monitor deliverable evaluations, review student diaries, and manage title proposals.

The dashboard also displays quick statistics on the number of students, upcoming meetings, and overall progress in evaluating FYP components. If there are no announcements or meetings scheduled, the system indicates this clearly.

This page ensures supervisors have immediate access to key supervisory activities for efficient student management.

(Figure 4.X: Supervisor Dashboard Page)

1. **Review Title Proposal**

The "Title Proposal" page allows supervisors to monitor and manage students' project title submissions. It displays student details including ID, name, group, project title, and description.

Supervisors can view all existing submissions, track pending approval requests, and review any project title change requests. If no pending requests are available, the system notifies the supervisor accordingly.

This page streamlines supervisor oversight of project topics and ensures timely proposal evaluations.

(Figure 4.X: Supervisor Title Proposal Page)

1. **View FYP Components**

The "View FYP Components" page allows supervisors to monitor and review student deliverables. It displays submission details such as group name, student name, component title, submission type, date, and status.

Supervisors can filter submissions by semester, student name, or deliverable type, helping them easily track pending, completed, and uncompleted submissions.

This page supports supervisors in managing FYP deliverables and ensuring timely evaluations.

(Figure 4.X: Supervisor View FYP Components Page)

1. **Meeting Management**

The "Manage Meetings" page enables supervisors to view and manage scheduled meetings with their students. Meetings are displayed in a calendar format and detailed in a table showing student names, meeting dates, times, topics, and statuses.

If no meetings are scheduled, the system will indicate accordingly. This page helps supervisors organize and track student consultations efficiently.

(Figure 4.X: Supervisor Manage Meetings Page)

1. **View Student Diaries**

The "View Student Diary" page allows supervisors to review students' weekly diary submissions. Supervisors can filter entries by student and week, check total submissions, and monitor pending or reviewed entries.

A submission status table provides a weekly overview of diary completion for each student. If no diary entries exist, the system indicates accordingly.

This feature helps supervisors track student progress throughout the project timeline.

(Figure 4.X: Supervisor View Student Diary Page)

1. **Evaluate Students and Groups**

The "Evaluate Students" page allows supervisors to assess individual students or entire groups based on project performance. Supervisors must first select a group or student to view evaluation information and proceed with submitting evaluations.

If no group is selected, the system prompts the supervisor to make a selection. This module ensures structured and accurate assessment submission for each FYP participant.

(Figure 4.X: Supervisor Evaluate Students Page)

1. **View Student Details**

The "View Student Details" page provides supervisors with a detailed list of all students under their supervision. The table displays full names, emails, usernames, intake year and month, group names, and recorded marks.

Supervisors can filter student information by semester, name, or deliverable, enabling quick access to student progress and evaluation data.

This page centralizes student records, supporting easier supervision and academic tracking.

(Figure 4.X: Supervisor View Student Details Page)

1. Supervisor Profile

The "Lecturer Profile" page allows supervisors and assessors to view and manage their personal account details. Profile information such as name, username, email, phone number, IC number, and role is displayed clearly.

Users can edit their profile details and update their account password through the "Change Password" section.

This page ensures that lecturers can maintain accurate and secure personal information within the system.

(Figure 4.X: Lecturer Profile Page)

* + 1. Assessor Interface

1. **Register Page**

The assessor registration page allows new users to create an account by entering their lecturer ID, password, full name, email address, and contact number. Assessors are registered into the system to perform evaluation duties for FYP students.

(Figure 4.2: Assessor Registration Page)

1. **Login Page**

Assessors access the system by entering their ID and password on the login page. A successful login redirects them to their dedicated assessor dashboard.

(Figure 4.3: Assessor Login Page)

* 1. **Assessor Dashboard**

The "Assessor Dashboard" provides assessors with an overview of their assigned evaluation tasks. It displays assigned students, evaluation completion percentages, and any available announcements.

If no students are assigned, the system indicates this clearly. Unlike supervisors, assessors do not manage meetings but focus solely on evaluating student work.

This dashboard ensures assessors can efficiently monitor and perform their assessment responsibilities.

(Figure 4.X: Assessor Dashboard Page)

* 1. **Evaluate Students and Groups**

The "Evaluate Students" page enables assessors to assess student or group project work. Assessors must select a group or individual student to view evaluation details and proceed with submitting assessments.

If no group is selected, the system prompts the assessor to make a selection. This module ensures that assessments are accurately recorded and organized.

(Figure 4.X: Assessor Evaluate Students Page)

* 1. View Student Details

The "View Student Details" page allows assessors to view basic information about students they are assigned to evaluate. It displays student names, emails, usernames, IC numbers, phone numbers, intake details, group names, and marks if available.

Assessors can filter the student list by semester, name, or deliverable to easily locate specific records. This page helps assessors review student backgrounds before conducting evaluations.

(Figure 4.X: Assessor View Student Details Page)

* 1. View FYP Components

The "View FYP Components" page allows assessors to monitor project deliverables submitted by students. It lists group names, student names, component titles, submission types, dates, and statuses.

Assessors can filter submissions by semester, student name, or deliverable. If no components are available for review, the system notifies the assessor.

This page ensures assessors have organized access to all student submissions for evaluation purposes.

(Figure 4.X: Assessor View FYP Components Page)

* + 1. Coordinator Interface

1. **Register Page**

The coordinator registration page allows new users to create an account by entering their lecturer ID, password, full name, email address, and contact number. Coordinators are registered into the system to manage FYP students, lecturers, assessments, and project progress.

(Figure 4.2: Coordinator Registration Page)

1. **Login Page**

Coordinators access the system by entering their ID and password on the login page. A successful login redirects them to their dedicated coordinator dashboard.

(Figure 4.3: Coordinator Login Page)

1. Coordinator Dashboard

The "Coordinator Dashboard" provides coordinators with a centralized view of FYP activities. It displays statistics such as the total number of lecturers, students, and pending assessments.

Coordinators can access key management modules including student details, FYP component tracking, rubric management, announcement publishing, teaching material uploads, and assessor assignment.

A meeting calendar and student list are also available for quick reference. This dashboard streamlines coordinator tasks for managing FYP operations efficiently.

(Figure 4.X: Coordinator Dashboard Page)

1. Assign Supervisor and Assessors

The "Assign Supervisors & Assessors" page allows coordinators to manage the assignment of supervisors and assessors to student groups.

A table displays group names, number of students, assigned supervisors, and assessors. Coordinators can select a group and assign a supervisor or assessor from the available lecturers.

This feature ensures that each group has proper academic oversight for their FYP progress and evaluation.

(Figure 4.X: Coordinator Assign Supervisors & Assessors Page)

1. Students Management

The "Manage Students" page allows coordinators to oversee all registered students. A table displays student names, usernames, emails, intake years, and intake months.

Coordinators can add new students, edit existing profiles, delete student accounts, or upload student details in bulk using a CSV file. Warnings are provided to prevent accidental deletion of important student data.

This page supports efficient student record management throughout the FYP process.

(Figure 4.X: Coordinator Manage Students Page)

1. Lecturers Management

The "Manage Lecturers" page enables coordinators to oversee lecturer records, including supervisors, assessors, and coordinators. A table lists lecturer names, usernames, emails, and assigned roles.

Coordinators can add new lecturers, edit existing profiles, assign roles, delete accounts, or upload lecturer details in bulk using a CSV file. Warnings are provided to ensure changes do not unintentionally affect supervision and assessment records.

This module centralizes lecturer management, ensuring proper staff assignment across FYP activities.

(Figure 4.X: Coordinator Manage Lecturers Page)

1. View FYP Submissions

The "View FYP Submissions" page allows coordinators to monitor all student deliverables submitted for the FYP. A table lists student names, deliverable titles, semesters, and submission timestamps.

Coordinators can filter submissions by semester, student name, or deliverable type, and download or view submitted files directly. This page ensures all deliverables are properly tracked for evaluation and record-keeping.

(Figure 4.X: Coordinator View FYP Submissions Page)

1. View Student Details

The "View Student Details" page provides coordinators with a detailed overview of students involved in the FYP. The table lists group names, student names, semesters, assigned supervisors, assessors, and total marks achieved.

Coordinators can filter student information by semester, group, or student name, making it easier to track supervision and assessment progress.

This page centralizes essential academic data to support efficient FYP management.

(Figure 4.X: Coordinator View Student Details Page)

1. Rubric Management

The "Manage Rubrics" page allows coordinators to create and edit rubrics for FYP deliverable evaluations. Coordinators select a deliverable, then add criteria, components, and scoring ranges associated with the selected deliverable.

If no rubrics exist, the page prompts coordinators to add new rubric structures. This module ensures standardized and fair evaluation for all student submissions.

(Figure 4.X: Coordinator Manage Rubrics Page)

1. Assign Assessment

The "Assign Assessment" page enables coordinators to manage FYP deliverables for evaluation. A table lists deliverable names, semesters, feedback titles, submission types (individual or group), and assigned weightages.

Coordinators can add new deliverables, edit existing ones, delete deliverables, and set the appropriate submission type. This page ensures structured evaluation planning aligned with FYP requirements.

(Figure 4.X: Coordinator Assign Assessment Page)

1. Manage Announcement

The "Manage Announcements" page allows coordinators to create, edit, and manage announcements for FYP participants. A table displays announcement titles, details, the posting coordinator, and creation and update timestamps.

If no announcements exist, the page indicates this clearly. This module helps coordinators effectively communicate important updates or reminders to students and lecturers.

(Figure 4.X: Coordinator Manage Announcements Page)

1. Manage Teaching Materials

The "Manage Teaching Materials" page enables coordinators to upload and manage supporting resources for FYP students. A table displays material titles, descriptions, file attachments, coordinator names, and upload timestamps.

Coordinators can add new materials, edit existing entries, or remove outdated files. If no materials are available, the page notifies the coordinator. This feature ensures students have access to updated learning resources throughout the project.

(Figure 4.X: Coordinator Manage Teaching Materials Page)

1. Setting Semesters

The "Set Semester" page allows coordinators to manage FYP semester cycles. A table displays existing semesters with their start dates, creation and update timestamps, and current status.

Coordinators can set a new semester by specifying a start date or delete outdated semesters if necessary. This module ensures that student and deliverable activities are aligned with the correct academic semester.

(Figure 4.X: Coordinator Set Semester Page)

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